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CMV INFECTION IN THE ERA OF TACROLIMUS/MYCOPHENOLATE: IS THERE STILL AN IMPACT TO DEVELOP CARDIAC ALLOGRAFT VASCULOPATHY?

ACC Moderated Poster Contributions
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Purpose: Cytomegalovirus (CMV) infection has been associated with subsequent development of cardiac allograft vasculopathy (CAV) after heart transplantation (HTx) in the cyclosporine era. Induction therapy along with CMV serology mismatch (donor+/recipient -) has been shown to increase the risk of CMV. Most programs now use tacrolimus (TAC) and mycophenolate (MMF) but it is unclear as to whether the association between CMV and CAV still holds in this patient population on triple drug immunosuppression (with and without induction). We reviewed our patients (pts) who were initiated on TAC/MMF and early CMV prophylaxis for the development of CMV infection and the subsequent development of CAV.

Methods: Between 2000-09 we evaluated 348 pts initiated on TAC/MMF with and without induction therapy. Pts were divided into those that developed CMV infection requiring intravenous gancyclovir therapy and those that did not develop CMV infection. Pts received routine CMV prophylaxis with valganciclovir for 6-12 months. Pts who developed CMV were assessed by their donor/recipient CMV serology match. The CMV and no CMV groups were then assessed for 5-year freedom from CAV. Results were also reviewed for those pts who did not receive induction therapy.

Results: CMV infection occurred in 17/348 (5%) HTx pts and occurred at a median of 7 months after transplant. 9/17 (53%) of pts with CMV infection had CMV serology mismatch (donor+/recipient -). Pts with CMV infection compared to pts without CMV infection had a similar 5-year freedom from CAV (77% vs. 81%, p=0.68). In the subgroup of 192 pts without induction therapy, CMV infection was seen in 14 (7%) pts. For this subgroup of pts, 5-year freedom from CAV was similar for those pts with CMV compared to those pts without CMV (71% vs. 82%, p=0.38).

Conclusion: In the current era, CMV infection in HTx pts initiated on TAC and MMF with or without induction therapy does not appear to have an association with the subsequent development of CAV at 5 years.